



Water Pricing

The PEIS analyzed three different methods of implementing tiered water pricing. Tiered water pricing is an incremental pricing system required by the CVPIA in which water costs rise with increased demand. Two of the options include the Ability-to-Pay policy, which forgives a portion of the capital repayment obligations. The third option would not include this policy.

Three water pricing options were considered in the PEIS. They range from water priced at the contract rate to water priced at full cost plus 20% without the Ability-to-Pay policy applied to the option.

Water Transfer Programs

The CVPIA provides for water transfers between willing buyers and sellers, but does not mandate such transfers. The PEIS analyzed the opportunities for water transfers and the way other CVPIA provisions affect these transfers. The PEIS makes assumptions about the volume of transferred water based on the following assumptions:

- All CVP water would be transferable;
- Transfers would be limited by existing conveyance capacity and no new groundwater or recharge would be used to expand conjunctive use programs; and
- The cost of the transferred water would be equal to the capital plus operation and maintenance costs and the net income lost as a result of the transfer.

Development of the Alternatives

The PEIS evaluated various alternatives for implementing the provisions of the CVPIA. These alternatives were developed through an extensive public scoping effort and screening process. The alternatives evaluate a range of actions or programs to meet CVPIA objectives. Multiple option programs provided the variability and flexibility needed to create such a range. The PEIS analyzed a No-Action Alternative, 5 Main Alternatives, including a Preferred Alternative, and 15 Supplemental Analyses.

The alternatives include implementation of the following programs:

- Anadromous Fish Restoration Program with flow and non-flow restoration methods and fish passage improvements;
- Reliable Water Supply Program for refuges and wetlands identified in 1989 Refuge Water Supply Study and the San Joaquin Basin Action Plan;
- Protection and restoration program for native species and associated habitats;
- Land Retirement Program for willing sellers of land characterized by poor drainage; and
- CVP Water Contract Provisions for contract renewals, water pricing, water metering/monitoring, water conservation methods, and water transfers.

The Alternatives were compared to the No-Action Alternative for their impacts.

PEIS Alternatives Defined

The PEIS includes a No-Action Alternative, 5 Main Alternatives, including a Preferred Alternative, and 15 Supplemental Analyses. The alternatives were developed in a building block fashion to reflect various levels of implementation that may occur depending on the level of willingness to participate and partner in the CVPIA programs. The Supplemental Analyses were analyzed to determine the impacts similar actions would have on the main Alternatives. Many of the Supplemental Analyses' actions are similar, but their outcomes differ depending on the main alternative with which they are combined.

Preferred Alternative

The Preferred Alternative was defined in response to the results of the Draft PEIS analysis, public comments received on the Draft PEIS and the Supplement to the Draft PEIS, public comments received on related Administrative Proposals, and the results of early implementation of several CVPIA provisions. The Preferred Alternative was constructed to implement CVPIA in a manner that best balances environmental benefits, affordability, and technical feasibility. As such, it does not include provisions that would clearly exceed the funding mechanisms of CVPIA, and require additional congressional authorization.

The Preferred Alternative includes Core Programs to meet CVPIA objectives. The Core Programs address contract renewal, water measurement and conservation, modification of various facilities and habitat to protect fish, seasonal field flooding, and land retirement. The Preferred Alternative uses reoperation of the project, under Section 3406(b)(1)(B), to provide greater benefit to fish and wildlife. The Preferred Alternative uses (b)(2) water to meet the CVP share of the Bay-Delta Plan, Instream Components, and Delta Components. The Preferred Alternative also implements Contract-to-Full-Cost tiered pricing rate, with the ability to pay policy, which begins at the contract rate for the first 80%, the average between contract and full-cost rates for the next 10% of water, and full cost for the final 10% of water.

The Preferred Alternative includes acquisition of up to 110,000 AF of water from willing sellers on the Stanislaus, Tuolumne, and Merced rivers and up to 30,000 AF on the Sacramento River tributaries. The acquired water would be used to increase the instream flows and partially to increase Delta outflow. CVP water would be used to provide reliable Level 2 refuge water supplies. Water acquired from willing sellers would be used to provide level 4 refuge water supplies. The Preferred Alternative includes retirement and revegetation of drainage problem lands.

The Preferred Alternative also includes provision for transfer of water between willing buyers and sellers, with no additional transfer fees.

Studies concerning Delta barriers, improvements at Red Bluff Diversion Dam and other CVPIA provisions are currently underway. Due to the status of these studies, the Preferred Alternative

recognizes the benefits of these programs, but does not include specific recommendations.

Alternative 1

This Alternative includes Core Programs to meet CVPIA objectives. The Core Programs are implemented in all five main alternatives, including the Preferred Alternative and address contract renewal, water measurement and conservation, modification of various facilities and habitat to protect fish, seasonal field flooding and land retirement. In addition to Core Programs, Alternative 1 uses reoperation of the project to provide greater benefit to fish and wildlife. Alternative 1 uses (b)(2) water to meet the CVP share of the Bay-Delta Plan as well as (b)(2) Instream Components. Alternative 1 also implements Contract-to-Full-Cost tiered pricing rate, which begins at the contract rate for the first 80%, the average between contract and full-cost rates for the next 10% of water, and full cost for the final 10% of water.

Alternative 1 does not acquire water for instream flow improvements or make permanent structural improvements to Old River Barrier or Georgiana Slough, but it does provide Level 2 refuge supplies with a shortage provision based on the Shasta inflow index.

Supplemental Analysis 1a

Supplemental Analysis 1a, as do all supplemental analyses' actions, builds on or adds to the main Alternative. Under Supplemental Analysis 1a, the (b)(2) Delta Component of the AFRP is added to the Bay-Delta and the Instream Components in the project reoperation and use of (b)(2) water.

Supplemental Analysis 1b

This alternative adds structural improvements in the Delta to protect young salmon and other fish as they migrate through the Delta. Modified operation at the Delta Cross Channel and permanent structures at Georgiana Slough and a seasonally operated barrier at Old River will improve survivability of young fish as they migrate downstream.

Supplemental Analysis 1c

All main Alternatives change current water pricing in some manner. Supplemental Analysis 1c builds on Alternative 1 by implementing the tiered pricing requirement of the CVPIA through the Full-Cost-Plus method. The first 80% of contract allocation is priced at full cost, the next 10% of allocation is 110% of full cost, and the final 10% of allocation is 120% of full cost.

Supplemental Analysis 1d

Supplemental Analysis 1d builds on the refuge water supply element of Alternative 1 by eliminating the shortage provision. In Supplemental Analysis 1d, refuges will receive full Level 2 supply in all years.

Supplemental Analysis 1e

Supplemental Analysis 1e includes fees for the transfer of CVP water, as specified by the CVPIA, and allows transfer of CVP water to non-CVP users.

Supplemental Analysis 1f

This alternative is similar to Supplemental Analysis 1e in its purpose, but would add a \$50/acre-feet (AF) fee on all CVP transfers, with the additional funds added to the Restoration Fund. This alternative and others that impose the additional fee would require additional Congressional authorization.

Supplemental Analysis 1g

Supplemental Analysis 1g removes the current ability-to-pay policy applied to the 80/10/10 Contract-to-Full-Cost tiered pricing policy implemented in the main Alternative 1.

Supplemental Analysis 1h

Restoration Funds would be used under this alternative to develop and implement a formal Revegetation Program for the retired lands. This alternative increases the use of the Restoration Funds for habitat restoration and enhancement.

Supplemental Analysis 1i

Supplemental Analysis 1i provides year-round opening of the Red Bluff Diversion Dam gates. This alternative will improve operational flexibility and provide greater balance among water supply and fish and wildlife demands. Diversions to the Tehama-Colusa Canal do not change from previous alternatives.

Alternative 2

Alternative 2 builds on Alternative 1 by acquiring, from willing sellers, 60,000 AF of water on both the Stanislaus and Tuolumne rivers, 50,000 AF on the Merced River, and an undetermined amount on Upper Sacramento River Tributaries. Refuge water supplies are increased to Level 4, subject to hydrologic shortages, through water purchase from willing sellers.

The acquired water would be used to improve fishery conditions on rivers tributary to the Delta. In addition to assisting in meeting target flows for the streams, the water would also be used to increase flows through the Delta and would not be exported.

Supplemental Analysis 2a

Supplemental Analysis 2a, like alternative 1b, would add structural improvements in the Delta to protect young salmon and other fish as they migrate through the Delta.

Supplemental Analysis 2b

This alternative allows transfers from CVP to non-CVP water users and includes fees specified in the CVPIA, similar to Supplemental Analysis 1e.

Supplemental Analysis 2c

Supplemental Analysis 2c is similar to 1f, which adds a \$50/AF fee to all transfers of CVP water.

Supplemental Analysis 2d

Supplemental Analysis 2d is similar to alternative 1c as it implements the tiered pricing requirement of the CVPIA through the Full-Cost-Plus method.

Alternative 3

Alternative 3 continues to build on the previous main Alternatives by retaining all of Alternative 1 and the Refuge Water Supply provision of Alternative 2 and adds to the volume and number of streams on which water is acquired.

Alternative 3 will acquire 200,000 AF on each of the Stanislaus, Tuolumne, and Merced rivers; 30,000 AF on the Calaveras River; 70,000 AF on the Mokelumne River; and 100,000 AF on the Yuba River. An undetermined amount of water will also be acquired on Upper Sacramento River Tributaries.

Alternative 3 is further distinguished from Alternative 2 in that acquired water is not specifically used to increase in-Delta Flows. As a result, acquired water is available for export under Alternative 3 once requirements of the Bay-Delta Accord have been met.

Supplemental Analysis 3a

This alternative repeats the water transfer implementation, as in Supplemental Analyses 1e and 2b, which includes only fees specifically mandated by the CVPIA.

Alternative 4

Alternative 4 builds from Alternative 3 by adding the Delta Component of the AFRP to the reoperation and (b)(2) water program and using the acquired water for Delta flow increases. Acquired water is not available for export from the Delta.

This Alternative completes the upper range of water acquisition and instream use. It provides the same acquisition levels in all streams as Alternative 3 and provides no export of acquired water as in Alternative 2.

Supplemental Analysis 4a

This alternative repeats the water transfer implementation as in Supplemental Analyses 1e, 2b, and 3a, which includes only fees specifically mandated by the CVPIA.